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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/833,386	04/11/2001	Stig Linander	CISCP225	3783
22434	7590	01/21/2005	EXAMINER	
BEYER WEAVER & THOMAS LLP			WONG, BLANCHE	
P.O. BOX 70250			ART UNIT	
OAKLAND, CA 94612-0250			PAPER NUMBER	
			2667	

DATE MAILED: 01/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/833,386

**Applicant(s)**

LINANDER, STIG

**Examiner**

Blanche Wong

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-76 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10, 14-23, 25, 29-31, 44, 46 and 62 is/are rejected.
- 7) ☒ Claim(s) 9, 11-13, 24, 26-28, 32-43, 45, 47-61, 63-76 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date Sep24'01.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 2-8,10,17-23,25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to cl. 2, it is unclear whether – a first portion of nodes – in ln. 2-3, is the same as that in cl. 1, ln. 6.

With regard to cl. 6, it is unclear what is – (a) – in ln. 2 and 7, and – (b) – in ln. 3 and 8.

With regard to cl. 17, it is unclear whether – a first portion of nodes – in ln. 2-3 is the same as – a first portion of the plurality of nodes – in cl. 16, ln. 5-6.

3. There is insufficient antecedent basis for these limitations in the following claims.
  - Claim 2 recites the limitation "the second portion of the plurality of communication request messages" in ln. 7-8.
  - Claims 3 and 18 recite the limitation "the first communication request" both in ln. 5.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1,14,16,29 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Ramakrishnan et al. (U.S. Pat No. 6,114,968).

With regard to claim 1, Ramakrishnan discloses different polls (SPOLL of Fig. 4, LCPOLL of Fig. 5, CRPOLL of Fig. 11)(filter parameters) sent a specified group, col. 6, ln. 50 and sub-groups, col. 6, ln. 59-63 (in selected communication request messages transmitted to a first portion of nodes). In Ramakrishnan, the use of poll signals for different groups limits the number of responses and reduces collision as claimed.

With regard to claims 14,29, Ramakrishnan discloses contention-based, col. 7, ln. 58-60 and col. 8, ln. 37-39.

With regard to claim 16, Ramakrishnan discloses first sending a SPOLL, col. 6, ln. 26 (a first portion of the plurality of nodes, the first communication request message including filter parameter for restricting responses to the first communication request to a first group of the first portion of nodes) and might respond with a LCPOLL or CRPOLL, col. 6, ln. 19-col. 9, ln. 12 (modify the filter parameter values; a second portion of nodes, the second communication request message including the modified filter parameters for restricting responses to the second communication request to a second group of the first portion of nodes).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2,3,18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramakrishnan and Ghaibeh (U.S. Pat No. 5,926,476).

With regard to claims 2,3,18, Ramakrishnan discloses the method of claim 1. However, Ramakrishnan fails to explicitly show a first portion of communication request messages do not include filter parameters and a second portion of communication request messages each include dynamically generated filter parameters.

In an analogous art, Ghaibeh discloses headend transmitting downstream data to all NTs (do not include filter parameters) but upstream bandwidth permits are allocated on either a reserved or "polling" basis, or on a "contention" basis, and then followed by a "scheduled" (time to transmit, as recited in cl. 3 and 18) basis (dynamically generated filter parameters, as recited in cl. 2 and 3). Col. 5, ln. 66-col. 6, ln. 15.

A person of ordinary skill in the art would have been motivated to employ Ghaibeh in Ramakrishnan in order to obtain communication request messages with or without filter parameters. The suggestion/motivation to do so would have been to provide network architectures and data communication protocols for supporting both downstream and upstream transport of digital data between a headend facility and multiple downstream network terminals ("NTs") over a shared communication medium. Ghaibeh, col. 3, ln. 3-6. At the time the invention was made, therefore, it would have

been obvious to one of ordinary skill in the art to which the invention pertains to combine Ghaibeh and Ramakrishnan to obtain the invention as specified in claims 2,3,18.

8. Claims 4,15,30,31,44,46,62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramakrishnan in view of Ruszczyk et al. (U.S. Pat No. 5,960,000).

With regard to claim 4, Ramakrishnan discloses the method of claim 2. However, Ramakrishnan fails to explicitly show the next communication request message that is to include dynamically generated filter parameters based upon a number of collisions detected on the communication channel during a predetermined time interval.

In an analogous art, Ruszczyk discloses three feedback states, col. 3, ln. 35 (IDLE, SUCCESS, COLLISION)(dynamically generated filter parameters; based upon a number of collisions) that determine how the headend unit schedules future contention opportunities, col. 3, ln. 37-39. See also col. 3, ln. 12-59.

A person of ordinary skill in the art would have been motivated to employ Ruszczyk in Ramakrishnan in order to obtain collision detection filter parameters. The suggestion/motivation to do so would have been to provide for contention opportunity. Ruszczyk, col. 3, ln. 27. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Ruszczyk and Ramakrishnan to obtain the invention as specified in claim 4.

With regard to claims 15,30, Ramakrishnan discloses the method of claim 1 as well as contention-based. However, Ramakrishnan fails to explicitly show TDMA communication.

In an analogous art, Ruszczyk discloses TDMA, col. 2, ln. 52.

A person of ordinary skill in the art would have been motivated to employ Ruszczyk in Ramakrishnan in order to obtain TDMA. The suggestion/motivation to do so would have been to provide for contention-free protocols. Ruszczyk, col. 2, ln. 51. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Ruszczyk and Ramakrishnan to obtain the invention as specified in claims 15,30.

With regard to claims 31,46,62, Ramakrishnan discloses different polls (SPOLL of Fig. 4, LCPOLL of Fig. 5, CRPOLL of Fig. 11)(filter parameters) sent a specified group, col. 6, ln. 50 and sub-groups, col. 6, ln. 59-63 (in selected communication request messages transmitted to a first portion of nodes). However Ramakrishnan fails to explicitly disclose a means to perform the steps.

Ruszczyk discloses a memory 1724 and computer code (as processed by control message processor 1722 and connection manager 1715). See also Fig. 17, col. 13, ln. 66 – col. 14, ln. 60. Furthermore, Ruszczyk discloses a control message processor 1722, memory 1724, at least one interface 1730,1740. See also Fig. 17, col. 13, ln. 66 – col. 14, ln. 60.

A person of ordinary skill in the art would have been motivated to employ Ruszczyk in Ramakrishnan in order to some computer usable medium and computer

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code. The suggestion/motivation to do so would have been to provide for a system that performs the methods. Ruszczyk, col. 13, ln. 66. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Ruszczyk and Ramakrishnan to obtain the invention as specified in claims 31,46,62.

With regard to claim 44, Ramakrishnan discloses contention-based, col. 7, ln. 58-60 and col. 8, ln. 37-39. However, Ramakrishnan fails to explicitly disclose a computer program product.

In an analogous art, Ruszczyk discloses a computer program product (as processed by control message processor 1722 and connection manager 1715)(See also Fig. 17, col. 13, ln. 66 – col. 14, ln. 60).

A person of ordinary skill in the art would have been motivated to employ Ruszczyk in Ramakrishnan in order to some computer usable medium and computer code. The suggestion/motivation to do so would have been to provide for a system that performs the methods. Ruszczyk, col. 13, ln. 66. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Ruszczyk and Ramakrishnan to obtain the invention as specified in claim 44.

#### ***Allowable Subject Matter***

9. Claims 9,11-13,24,26-28,32-43,45,47-61,63-76 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in



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independent form including all of the limitations of the base claim and any intervening claims.

10. Claim 2-8,10,17-23,25 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blanche Wong whose telephone number is 571-272-3177. The examiner can normally be reached on Monday through Friday, 830am to 530pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*BW*

BW

January 12, 2005



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